

REMARKS

Reconsideration of the above-identified application in view of the amendments above and the remarks following is respectfully requested.

Claims 1-48 are in this Application. Claims 1, 18, 19, 24 and 26 have been amended herewith.

35 U.S.C. § 102 Rejections

Claims 1-8, 17, 19-23, 26-30, 43-46, 48 are rejected under 35 USC 102 as being anticipated by US patent 5,511,122 (hereinafter: "Atkinson"). Applicants thank the Examiner for his response to arguments, but do not agree with the Examiner's position. Independent Claims 1, 18, 19, 24 and 26 have been amended, however, to help in bringing the application towards allowance.

In his response to the arguments made in the response to the USPTO Action mailed September 24, 2009, the Examiner argues that the claim language does not refer to separation of multiple entities of servers.

Amended claim 1 and dependent claims 2-8, 17, 43-46, and 48

Amended claim 1 now recites the following feature:

"wherein said intermediate device and said authentication server are separated from one another"

Basis for this amendment may be found in FIG. 3 and the related description. For clarification, FIG. 3, which separately depicts the intermediate device (36) and the authentication server (35), is provided herein:

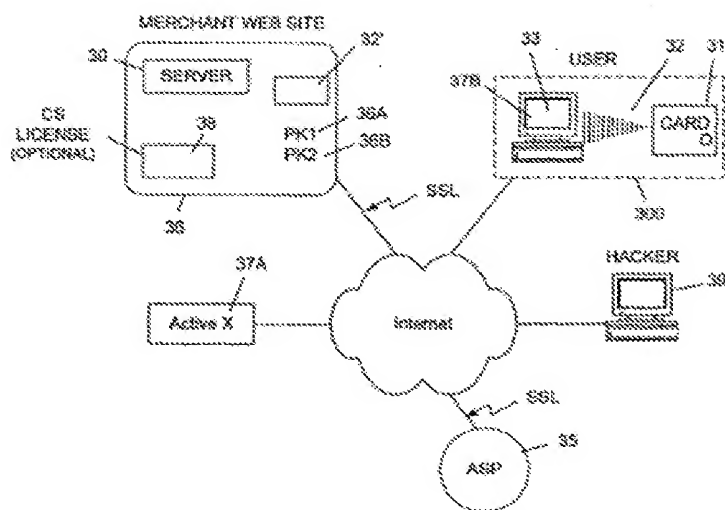


Fig. 3

In particular, FIG. 3 depicts an authentication server, the authentication service provider (ASP) 35, and an intermediate device, a merchant 36, which are separated from one another. These separate entities communicate via a communication network, the internet, as recited in amended claim 1.

This is explicitly recited in amended claim 1, where the intermediate device requests from the authentication server to authenticate a user and continues to interact with the user based on the authentication it receives from the authentication server. As recited in amended claim 1, a first entity, the intermediate device, performs the following authentication to a user:

- receives a request from a user,
- responses to the request,
- receives an authentication datagram,
- protects the authentication datagram,
- forwards the authentication datagram to a separate entity, the authentication server, and
- continues to interact based on the response to the authentication datagram.

Atkinson does not teach or imply any entity, such as the intermediate device entity, which performs this authentication to a user and communicates with a separate authentication server as recited in amended claim 1. Moreover, in *Atkinson*, an originating host is locally authenticated in a process that is performed by and in the receiving host, for example as shown by block 88 of FIG. 3 of *Atkinson* and/or in a router which transfers packets, for example as shown by block 116 of FIG. 4. The authentication is not initiated by a receiving entity that forwards a protected authentication datagram to a separate authentication entity, as explicitly recited in amended claim 1.

It should be noted that the method recited in amended claim 1 allows a separate authentication device to provide authentication services to a plurality of services, see page 12 of the present application. The whole concept of such a separate authentication device is not taught or implied by *Atkinson* or any of the cited references.

Based on the above, it is clear that *Atkinson* does not teach an intermediate device or an authentication server as explicitly recited in Claim 1. A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference, see *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). *Atkinson* clearly does not describe, expressly or inherently, a method of authenticating, as recited in Claim 1. Claims 1-8, 17, and 43-46, 48 are patentable at least for reason of depending on an allowable independent claim.

Claims 19 and 20

The rejection of claim 19 is not clear to the Applicants. It is not clear why the Examiner ignores following feature which is recited in claim 19:

“wherein, said datagram includes a secret code and wherein said secret code exists only on said authentication device”

The Examiner did not show that *Atkinson* teaches a secret code which only exists on an authentication device. As mentioned above, a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *Atkinson* clearly does not describe, expressly or inherently, a secret code which only exists on an authentication device, as recited in Claim 1. In order to emphasize further the differences between the claimed invention and *Atkinson* and without prejudice, Applicants amended claim 19 to explicitly recite a remote authentication server which is separated from the authentication device. Thus, the arguments made above in respect of the novelty of Claim 1 apply *mutatis mutandis* to independent claim 19. Based on these arguments, Applicants asserts that the independent claim 19 is allowable main claim and dependent claims 20 and 39 are consequently allowable as being dependent on an allowable main claim.

Claims 21-23

The Examiner interprets, with regard to claim 21, ignoring unauthenticated responses as destroying. Applicants contend that ignoring an item is NOT the same as destroying, as after ignoring one can still start to pay attention, but destruction is a final act. Thus, the Examiner has no prima facie case.

In order to emphasize further the differences between the claimed invention and *Atkinson* and without prejudice, Applicants amended claim 21 to explicitly recite an authentication process which is not taught by *Atkinson*. Basis for this amendment is found, inter alia, in paragraphs [0185]-[0189] and paragraphs [0246]-[0247] of the present application. Applicants assert that the amended independent claim 21 is allowable main claim and dependent claims 22-23, and 40 are consequently allowable as being dependent on an allowable main claim.

Claims 26-30

Claim 26 has been rejected based on *Atkinson*. However, in spite of the Examiner's interpretation of a packet number generation as a counter, Applicants do not find a counter which is incremented based on a validity of an authentication

diagram. In addition, claim 26 recites a validation signal that is outputted in response to the counter. This is not found in the art, even according to the method of interpretation used by the Examiner. The Examiner argues that such a validation signal is taught by the user and application level distributed Key of *Atkinson*. However, as these keys are not outputted in response to a value of the counter, this rejection is believed to be moot. As described above, a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *Atkinson* clearly does not describe, expressly or inherently, a counter and/or a respective validation output, as recited in Claim 26. Claims 27-30 and 41 are patentable at least for reason of depending on an allowable independent claim.

Claims 31-36

Claims 31-36 are rejected under 35 U.S.C 102(b) as being anticipated by Douglas S. *Daudelin* (US PAT No. 4716376), hereinafter *Daudelin*. The Applicant repeat herein their arguments from the previous response to the office action mailed September 24, 2009. The Examiner ignored to these arguments and repeated his rejection without any new evidence which relates to the distinguishing features emphasized by the Applicants, namely the acoustic FSK signal and a correlation of the Hilbert transform and a reference signal.

In the previous response and in this response, the Examiner asserts that *Daudelin* shows using a Hilbert transform. While this may be true, the method of *Daudelin* is very different from that claimed. In particular, the Examiner is still missing claim limitations not found in any of the cited art and the Examiner has not shown a prima facie case:

- a. *Daudelin* does not detect an acoustic FSK signal, only an RF FSK signal; and
- b. correlation of the Hilbert transform and a reference signal (and then integration) is not shown in *Daudelin*.

Referring specifically to point b. *Daudelin* Col. Lines 48-56, indicated by the Examiner as teaching such correlation, do not discuss correlation at all. Rather, Col. 4, Lines 35-55 teach that any comparison is not to a reference signal but rather to the same signal processed in a different manner. This apparently is to distinguish between different frequencies present in the signal. For that reason, the Examiner has also not shown an actual integration. The section referred to by the Examiner (Col. 13, Lines 45-50) relate to a method of calculating a dynamic threshold value.

35 U.S.C. § 103 Rejections

Claim 18 is rejected under 35 U.S.C §103(a) as being unpatentable over *Atkinson* and in view of *Lin* et al. (US Publication No. 20030147547), herein after *Lin*. Applicants amended claim 18 to explicitly recite a remote authentication server which is separated from the vendor software. Thus, the arguments made above in respect of the novelty of Claim 1 apply *mutatis mutandis* to independent claim 18. Based on these arguments, Applicants asserts that the independent claim 18 is allowable main claim and dependent claim 38 is consequently allowable as being dependent on an allowable main claim.

The Examiner rejected Claims 9-16 under 35 U.S.C. 103(a). As described above, Applicants assert that amended claim 1 is an allowable main claim. Thus, dependent Claims 9-16 are consequently allowable, at least as being dependent on an allowable main claim.

Claims 24 is rejected under 35 U.S.C §103(a) as being unpatentable over *Atkinson* and in view of *Sandberg* (US Publication No. 20040053642), hereinafter *Sandberg*.

Applicants amended claim 24 to explicitly recite a remote authentication server which is separated from the vendor's intermediate device. Thus, the arguments made above in respect of the novelty of Claim 1 apply *mutatis mutandis* to independent claim 24. In addition Applicant clarified that the onetime code in the claim is generated by a card of the user. Basis for this amendment is found, inter alia, in paragraph [0117] of the present application. Such a onetime code is different from

the one time code taught in Sandberg, which is an activation code that is generated in a server of a telephone operator and mailed to the user, see paragraph [0002] of Sandberg. Applicants assert that the independent claim 24 is allowable main claim and dependent claim 25 is consequently allowable as being dependent on an allowable main claim.

The Examiner rejected Claim 37 is rejected under 35 U.S.C. 103(a) as being unpatentable over *Atkinson*, in view of *Daudelin*. As described above, Applicants assert that amended claim 1 is an allowable main claim. Thus, dependent claim 37 is consequently allowable, at least as being dependent on an allowable main claim.

The Examiner rejected Claim 39 is rejected under 35 V.S.C 102(b) as being unpatentable over *Atkinson* and in view of “*Boreckiet*”. As described above, Applicants assert that amended claim 1 is an allowable main claim. Thus, dependent claim 39 is consequently allowable, at least as being dependent on an allowable main claim. In addition, the Examiner did not provide any reference number to the cited document which is referred to in the office action as “*Boreckiet*”. If this rejection is not moot in light of the arguments above, the Examiner is requested to provide a reference that will allow the Applicants to relate to this rejection.

The Examiner rejected Claims 40 and 41 are rejected under 35 V.S.C 102(b) as being unpatentable over *Atkinson* and in view of *Schutzer*, Daniel (US Patent No. 6873974), hereinafter *Schutzer*. As described above, Applicants assert that amended claims 21 and 26 are allowable main claims. Thus, dependent claims 40 and 41 are consequently allowable, at least as being dependent on an allowable main claim.

The Examiner rejected Claim 42 is rejected under 35 U.S.C. 103(a) as being unpatentable over *Daudelin*, in view of *Atkinson* and in view of *Schutzer*. As described above, Applicants assert that amended claim 31 is an allowable main claim. Thus, dependent claim 42 is consequently allowable, at least as being dependent on an allowable main claim.

The Examiner rejected Claim 47 is rejected under 35 U.S.C. 103(a) as being unpatentable over *Atkinson*, in view of *Lin*. As described above, Applicants assert that amended claim 1 is an allowable main claim. Thus, dependent claim 47 is

consequently allowable, at least as being dependent on an allowable main claim.

Finality of the following Office Action

As stated above, the Examiner did not establish that each and every element as set forth in any of the independent claims is found, either expressly or inherently described, in a single prior art reference as required to support the conclusion that at least some of the original claims are anticipated. In addition, the Examiner ignored the Applicants arguments regarding some of the claims, for example regarding previously presented claim 31. Therefore, any rejection that will be presented to any of the original claims in the following office action will be based on a new ground that is neither necessitated by the Applicants' amendments nor based on information submitted in an Information Disclosure Statement (IDS) filed during the period set forth in 37 C.F.R. §1.97(c) with the fee set forth in 37 C.F.R. §1.17(p). Therefore, the following Office Action cannot be a Final Office Action, see MPEP §706.07(a) Final Rejection, When Proper on Second Action [R-6] - 700 Examination of Applications.

Conclusion

In view of the above amendments and remarks it is respectfully submitted that claims 1-48 are now in condition for allowance. A prompt notice of allowance is respectfully and earnestly solicited. If the Examiner does not feel the claims can be allowed, prior to mailing of the Examiner's next Official Action, Applicants hereby requests an interview with the Examiner to discuss the outstanding Official Action and Applicants' amendment. Thus, prior to mailing of the Examiner's next Official Action, the Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

Respectfully submitted,

/Jason H. Rosenblum/

Jason H. Rosenblum
Registration No. 56,437
Telephone: 718.246.8482

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Enclosures:

- Petition for Extension (One Months)